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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/912,586
Filing Date: July 24, 2001
Appellant(s): HAMEL ET AL.

Sandra Parker
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 15, 2005 appealing from the Office

action mailed January 13, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-2, 6-10, 14-18, 22-24** are rejected under 35 U.S.C. 103(a) as being

unpatentable over IBM Corporation ("Datajoiner: a Multidatabase Server Version 1),

hereinafter "**IBM**", and in view of Hejlsberg et al. (US 6,151,602), hereinafter

"**Hejlsberg**".

As per claims 1, 9, 17, IBM teaches a method, a system and a program storage

device for loading data from a remote data source, in a computer system network

connecting a source site and a target site via a database connection communication line

(See page 11, Fig. 4), the method comprising the following steps:

- "(a) coupling the source site to at least one data source and to a software server

    having multi-database access to DBMSs" at page 11, Fig. 4;

- "(b) at the target site requesting data loading from the source site via a block of

    Structured Query Language (SQL) statements" at page 7, Fig. 1; and

- (c) transporting data "via the database connection communication line according

  to a multi-database access communication protocol" at page 12, 1st paragraph.

IBM does not teach "transporting data record by record" nor "the target site

loading records concurrently with the unloading of records in the source site" as

claimed. However, Hejlsberg teaches a similar method for loading data from a remote

data source (See Fig. 3), wherein data is transported "record by record" and "the target

site loading records concurrently with the unloading of records in the source site" at Col.

7 lines 30-37 and Col. 7 line 66 to Col. 8 line 10.

(Examiner notes: Hejlsberg teaches a data packet for transmitting

data from a database using sequential or streaming method wherein

data is transmitted "one piece of information at a time". At Fig.

4, Hejlsberg shows the layout of a data packet comprises row

data, therefore, "piece of information" corresponds to a row

data. Hejlsberg also provides the advantage of using this

streaming method which "allows the system to process data while

it is still being received; this is important, for instance, for

data being received across the Internet").

Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention was made to combine IBM and Hejlsberg's teaching to improve data

transmitting speed by "allowing the system to process data while it is still being

received". Modification of the IBM's system a suggested by Hejlsberg would reduce

user's waiting time for data to arrive, especially "for data being received across the Internet", as noted by Hejlsberg at Col. 7 lines 30-37.

As per claims 2, 10, 18, IBM and Hejlsberg teach the method, system and program storage device according to claims 1, 9, 17 as discussed above. Hejlsberg also teaches: "a data record being transported across the database connection communication line as soon as one or more data records are unloaded from the source site, and data loading at the target site beginning as soon as a record was transported to the target site" at Col. 7 lines 30-36 and Col. 7 line 66 to Col. 8 line 17.

As per claims 6, 14, 22, IBM and Hejlsberg teach the method, system and program storage device according to claims 1, 9, 17 as discussed above. IBM also teaches: "the server site having access to multiple data sources, physically distributed and disparate DBMSs, residing on different hardware systems and possibly storing data in a different format" at page 11, Fig. 4.

As per claims 7, 15, 23, IBM and Hejlsberg teach the method, system and program storage device according to claims 6, 14, 22 as discussed above. IBM also teaches: "the server site loading data from multiple data sources, further comprising a step for using a means for consolidating data from multiple data sources" at page 1, 4th and 5th and page 11, Fig. 4.

As per claims 8, 16, 24, IBM and Hejlsberg teach the method, system and program storage device according to claims 1, 9, 17 as discussed above. IBM also teaches: "the database connection communication line utilizing the TCP/IP protocol" at

page 11, 3rd paragraph, and "the software server having multi-database access to

DBMSs including a Distributed Relational Database Architecture (DRDA)" at page 12,

1st paragraph.

3.   **Claims 3, 11, 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over

IBM and Hejlsberg as applied to claims 1-2, 6-10, 14-18, 22-24 above, and further in

view of Gottemukkala ("Interfacing Parallel Applications and Parallel Databases"),

hereinafter "**Gottemukkala**".

        As per claims 3, 11, 19, IBM and Hejlsberg teach the method, system and

program storage device according to claims 1, 9, 17 as discussed above. IBM and

Hejlsberg do not explicitly teach: "the data loading being performed in a pipeline

manner, loading data records in multiple partitions with a plurality of parallel streams,

pointed to by a plurality of data source partition cursors", However, Gottemukkala

teaches a method for perform database query in parallel using cursors (See Fig. 2),

wherein "the data loading being performed in a pipeline manner, loading data record in

multiple partitions with a plurality of parallel streams, pointed to a plurality of data source

partition cursors" at page 2, Col. 1 and Figs. 2 –7. Thus, it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to modify IBM and

Hejlsberg teaching so that the data loading could be performed in parallel as taught by

Gottemukkala, in order "to speed up the performance of complex queries, which makes

manipulation of large data sets feasible and manageable" (page 1, Col. 1, 1st

paragraph).

4.   **Claims 4-5, 12-13, 20-21 are rejected under 35 U.S.C. 103(a)** as being

unpatentable over IBM and Hejlsberg as applied to claims 1-2, 6-10, 14-18, 22-24

above, and further in view of Vassilakis et al. ("Implementing Embedded Valid Time

Query Languages"), hereinafter "Vassilakis".

       As per claims 4, 12, 20, IBM and Hejlsberg teach the method, system and

program storage device according to claims 1, 9, 17 as discussed above. IBM and

Hejlsberg do not explicitly teach: "the block of SQL statements comprises dynamic

executable SQL statements performing in the EXECUTE IMMEDIATE mode". However,

Vassilakis teaches a method of using SQL to retrieve data from database "a row-at-a-

time" similar to IBM and Hejlsberg teaching wherein "the block of SQL statements

comprises dynamic executable SQL statements performing in the EXECUTE

IMMEDIATE mode" at page 7. Thus, it would have been obvious to one of ordinary skill

in the art at the time of the invention was made to implement IBM and Hejlsberg's

teaching in "EXECUTE IMMEDIATE mode" in order to process the dynamic formulated

SQL statement.

       As per claims 5, 13, 21, IBM and Hejlsberg teach the method, system and

program storage device according to claims 1, 9, 17 as discussed above. IBM and

Hejlsberg do not teach: "the block of SQL statements comprises: a SQL DECLARE

CURSOR FOR SELECT statement, for defining a cursor referencing separately each

SELECT statement result record unloading from the server site, and a LOAD command

and an operator INCURSOR with the same cursor name for pointing to the receiving

record at the target site". However, Vassilakis teaches a method of using SQL to

retrieve data from database "a row-at-a-time" similar to IBM and Hejlsberg's teaching

using "a SQL DECLARE CURSOR FOR SELECT statement, for defining a cursor

referencing separately each SELECT statement result record unloading from the server

site, and a LOAD command and an operator INCURSOR with the same cursor name for

pointing to the receiving record at the target site" at page 2, section 2.2. As noted by

Vassilakis, "using cursors, an application may obtain addressability to tuples stored in

the database (one tuple at a time), fetch data values into its address space, as well as

delete or modify the tuples"(page 3, section 2.2). Thus, it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to combine

Vassilakis with IBM and Hejlsberg's teaching in order to allow applications to address

considered database data at row level (i.e. tuple level) instead of data table level, in

order to reduce unnecessary data transfer by transferring only relevant rows instead of

the whole table.

(10) Response to Argument

(A) Response to arguments regarding the 103(a) rejection of claims 1-2, 6-10, 14-18, 22-24.

Independent claims 1, 9 and 17

In response to appellant's allegation that the prosecution was prematurely cut off, the examiner respectfully submits that any question as to prematureness of a final rejection should be raised, if at all, while the application is still pending before the primary examiner. This is purely a question of practice, wholly distinct from the tenability of the rejection. It may therefore not be advanced as a ground for appeal, or made basis of complaint before the Board of Patent Appeal and Interferences. It is reviewable by petition under 37 CFR 1.181. See MPEP § 1002.02(c). Accordingly, the issue of premature Final Office Action in the appeal brief will not be considered.

Regarding claim 1, appellant argued that the IBM reference does not teach "loading" and does not teach "program storage device"". On the contrary, IBM teaches, at page 11, Fig. 4, the Datajoiner is configured in a three-tier environment, wherein the Datajoiner is stored in the middle device. The Datajoiner in the middle storage device allows client devices (i.e., "target site") at the bottom tier to load (i.e., "access") data from remote data source (i.e., "source site") at the top tier.

Appellant argued that IBM does not teach "coupling the source site to at least one data source and to a software server having multi-database access to DBMSs"; on the contrary, as discuss above, IBM teaches at Fig. 4 the source site (top tier) are

coupled with five different data sources (i.e., DB2/MVS, SYSBASE, ORACLE, VSAM,

DB2/6000) and to a software server in the middle tier (i.e., Datajoiner).

Appellant argued that IBM does not teach "at the target site, requesting data

loading from the source site via a block of Structure Query Language (SQL) statement".

On the contrary, IBM teaches at page 7, Fig. 1 a block of SQL statement at the target

site (i.e., bottom tier) for requesting data from the source site. Appellant argued that

"this action the IBM cannot perform because it is incapable of loading record by record",

the examiner respectfully submits that the IBM reference was not relied on for the

teaching of limitation "loading record by record" as argued.

Appellant also argued that Fig. 1 illustrates multi-location join, not "load" as

claimed, the examiner respectfully submits that the SQL statements are for requesting

data loading from the source site's database tables into the target site as claimed.

Appellant's specification at page 2 line 10-11 equates load with import and unload with

extract, or export data; therefore, the target site receiving data from a source site is

same as loading data and the source site extracting data from database tables in

response to target site request is same as unloading data as claimed.

Appellant argued that IBM does not teach "transporting data via database

connection communication line according to a multi-database access protocol". On the

contrary, IBM teaches at page 12, 1st paragraph that the Datajoiner has one data

access module is used for all data sources that support Distributed Relational Database

Architecture protocol, which is a multi-database access protocol as claimed.

Appellant argued that the Final Office Action "excluded without any indication the most important feature of the present invention, namely: transporting data record by record and wherein target site loading records concurrently with the unloading of records in the source site". The examiner respectfully submits that the Final Office Action clearly addressees the above limitations at page 4 by stating that IBM does not teaches the above limitation and relied on Hejlsberg to reject these limitations.

In response to Appellant's allegation that the claims were dissected, some parts were removed, and then each remaining part was reviewed in isolation, the examiner respectfully submits that the claimed invention is directed to an improved of the multi-database server database management system, namely the DataJoiner, as noted by appellant at page 2 of the Appeal Brief. The examiner therefore tried to separate prior art system's components, which are anticipated by the IBM reference, and relied on the Hejlsberg for the teaching of the improved components. Particularly, the IBM describes a prior art system as claimed, the only difference is that the first version of DataJoiner moves files having whole table, as not by Appellant in the Appeal Brief page 9, lines 1-8, instead of "record by record" as claimed.

In response to appellant's argument that Hejlsberg does not teach "transporting data record by record" nor "target site loading of records occurs concurrently with the unloading of records in the source site", the examiner respectfully submits that Hejlsberg transporting data in form of data packets. Hejlsberg teaches at Col. 7 line 66 to Col. 8 line 10 that "a data packet representing ordinary data can be "partial", meaning the total data content is divided into multiple data packets", therefore the result set data

is not transmitted as a whole file, but instead divided into multiple packets, each packet

contain N number of rows (See Fig. 4). In the case N equals 1, each packet contains

exact one row, or one record. Therefore, Hejlsberg teaches transmitting data record by

record as claimed because Hejlsberg transmits data packet by packet, wherein each

packet contain row data, and row is synonymous with record.

Further, since the data rows (i.e., records) are divided into multiple data packets,

when client receives and unloads the first data packet contains the first set of record,

the next sets of record are still streaming out of the source site. Therefore, the target

site loading of records occurs concurrently with the unloading of records in the source

site as claimed.

In response to appellant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Hejlsberg

and "IBM" teaches a three tiers architecture for responding to SQL requests from a

client to a database system (See Hejlsberg's Fig. 3 and IBM's Fig. 4). Hejlsberg

suggests using streaming data packets to transmit row data to client, one piece of

information at a time, because "this approach allows the system to process data while if

is still being received" (Hejlsberg Col. 7 lines 30-40). It is also well known to one of

ordinary skill in the art that streaming format allows client system to load data

concurrently with the unloading of data from the server. For example, streaming video

format allows user to view full motion video immediately after the first set of frames is

loaded at the client system, while the next sets of frames are unloaded from the server,

without waiting for receiving of all of the frames. The IBM's system is implemented

mostly using TCP/IP protocol (See IBM's page 11), meaning data is transmitted across

the Internet, therefore, modification of the IBM's system as suggested by Hejlsberg

would reduce user's waiting time for data to arrive, especially "for data being received

across the Internet", as suggested by Hejlsberg at Col. 7 lines 30-37.

In response to appellant's argument that Hejlsberg is nonanalogous art, it has

been held that a prior art reference must either be in the field of appellant's endeavor or,

if not, then be reasonably pertinent to the particular problem with which the appellant

was concerned, in order to be relied upon as a basis for rejection of the claimed

invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this

case, as discussed above, both Hejlsberg and "IBM" teaches a three tiers architecture

for responding to SQL requests from a client to a database system (See Hejlsberg's Fig.

3 and IBM's Fig. 4). Appellant's invention is an improvement of the IBM reference's

system, whereas the Hejlsberg reference also teaches a system including many

elements of the invention of claims 1 such as "source site" (Fig. 3, 355), "target site"

(Fig. 3, 310), database server (Fig. 3, 350). Hejlsberg is therefore analogous art and the

103 rejections are proper.

In response to appellant's argument that "non of the referenced prior art teaches elements of claims 1, 9 and 17 and their combination is invalid, there is no valid reason for rejection of these independent claims and claims dependent thereof". The examiner respectfully submits that appellant's arguments only amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Appellants are referred to section 9 of this Examiner Answer which show how the examiner interprets claimed limitations, and portions of the references correspond to claimed limitations, what teachings are lacking in the references, as well as motivations for combining references and why it is obvious to combine references. A prima facie case of obviousness has been established and the 103 rejection of claims 1, 9, 17 is proper and should be maintained.

Dependent claims 2, 10 and 18.

Appellant argued that Hejlsberg does not teach "a data record being transported across the database connection communication line as soon as one or more data records are unloaded from the source site, and data loading at the target site beginning as soon as a record was transported to the target site". On the contrary, the examiner respectfully submits that in Hejlsberg, the data record (i.e., row data) is transported across the Internet, and Hejlsberg teaches at Col. 7 line 66 to Col. 8 line 10 that "a data packet representing ordinary data can be "partial", meaning the total data content is divided into multiple data packets", therefore the result set data is not

transmitted as a whole file, but instead divided into multiple packets, each packet

contain N number of rows (See Fig. 4). As seen in Hejlsberg's Fig. 5, after one or more

data record are extracted (i.e., unloaded), the source site constructs a data packet (step

503) containing the data records (step 505) and transmits to the target site (step 507)

without waiting for user's request. Hejlsberg's Fig. 6 shows that the target site (i.e.,

client) process the data packets (step 605) as soon as the record was transported to the

target site (step 601).

Dependent claims 6, 14, and 22.

In response to appellant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

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concurrently with the unloading of data from the server. For example, streaming video

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loaded at the client system, while the next sets of frames are unloaded from the server,

without waiting for receiving of all of the frames. The IBM's system is implemented

mostly using TCP/IP protocol (See IBM's page 11), meaning data is transmitted across

the Internet, therefore, modification of the IBM's system as suggested by Hejlsberg

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case, as discussed above, both Hejlsberg and "IBM" teaches a three tiers architecture

for responding to SQL requests from a client to a database system (See Hejlsberg's Fig.

3 and IBM's Fig. 4). Appellant's invention is an improvement of the IBM reference's

system, whereas the Hejlsberg reference also teaches a system including many

elements of the invention of claims 1 such as "source site" (Fig. 3, 355), "target site"

(Fig. 3, 310), database server (Fig. 3, 350). Hejlsberg is therefore analogous art and the

103 rejections are proper.

Dependent claims 7, 15 and 23.

In response to appellant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

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that a prior art reference must either be in the field of appellant's endeavor or, if not,

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concerned, in order to be relied upon as a basis for rejection of the claimed invention.

See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, as

discussed above, both Hejlsberg and "IBM" teaches a three tiers architecture for

responding to SQL requests from a client to a database system (See Hejlsberg's Fig. 3

and IBM's Fig. 4). Appellant's invention is an improvement of the IBM reference's

system, whereas the Hejlsberg reference also teaches a system including many

elements of the invention of claims 1 such as "source site" (Fig. 3, 355), "target site"

(Fig. 3, 310), database server (Fig. 3, 350). Hejlsberg is therefore analogous art and the

103 rejections are proper.

Dependent claims 8, 16 and 24.

In response to appellant's argument that there is no suggestion to combine the

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system, whereas the Hejlsberg reference also teaches a system including many

elements of the invention of claims 1 such as "source site" (Fig. 3, 355), "target site"

(Fig. 3, 310), database server (Fig. 3, 350). Hejlsberg is therefore analogous art and the

103 rejections are proper.

(B) Response to arguments regarding the 103(a) rejection of claims 3, 11 and 19

Appellant argued that Gottemukkala does not teach the limitations of

claims 3, 11 and 19. On the contrary, Gottemukkala teaches a method for perform

database query in parallel using cursors (See Fig. 2), wherein "the data loading being

performed in a pipeline manner, loading data record in multiple partitions with a plurality

of parallel streams, pointed to a plurality of data source partition cursors" at page 2, Col.

1 and Figs. 2 –7. Thus, it would have been obvious to one of ordinary skill in the art at

the time of the invention was made to modify IBM and Hejlsberg teaching so that the

data loading could be performed in parallel as taught by Gottemukkala, in order "to

speed up the performance of complex queries, which makes manipulation of large data

sets feasible and manageable" (page 1, Col. 1, 1st paragraph).

In response to appellant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

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suggests using streaming data packets to transmit row data to client, one piece of

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ordinary skill in the art that streaming format allows client system to load data

concurrently with the unloading of data from the server. For example, streaming video

format allows user to view full motion video immediately after the first set of frames is

loaded at the client system, while the next sets of frames are unloaded from the server,

without waiting for receiving of all of the frames. The IBM's system is implemented

mostly using TCP/IP protocol (See IBM's page 11), meaning data is transmitted across

the Internet, therefore, modification of the IBM's system as suggested by Hejlsberg

would reduce user's waiting time for data to arrive, especially "for data being received

across the Internet", as suggested by Hejlsberg at Col. 7 lines 30-37. Gottenmukkala

teaches a method for perform database query in parallel using cursors (See Fig. 2),

wherein "the data loading being performed in a pipeline manner, loading data record in

multiple partitions with a plurality of parallel streams, pointed to a plurality of data source

partition cursors" at page 2, Col. 1 and Figs. 2 –7. Thus, it would have been obvious to

one of ordinary skill in the art at the time of the invention was made to modify IBM and

Hejlsberg teaching so that the data loading could be performed in parallel as taught by

Gottenmukkala, in order "to speed up the performance of complex queries, which

makes manipulation of large data sets feasible and manageable" (page 1, Col. 1, 1st

paragraph).

(C) Response to arguments regarding the 103(a) rejection of claims 4-5, 12-13, 20-

21.

Dependent claims 4, 12 and 20.

Appellant argued that Vassilakis does not teach: "concurrent record-by-record data transfer in a multi-database DBMS". On the contrary, the examiner relied on the Vassilakis reference only for the teaching of "the block of SQL statements comprises dynamic executable SQL statements performing in the EXECUTE IMMEDIATE mode" as taught by Vassilakis at page 7. The other limitations such as "concurrent record-by-record" are taught by IBM and Hejlsberg, as discussed above. Further, similar to IBM and Hejlsberg's teaching, Vassilakis teaches a method for using SQL to retrieve data from database "a row-at-a-time" at follows:

"Cursors provide **a row-at-a-time** interface to the database. Using cursors, an application may obtain addressability to tuples stored in the database (**one tuple at a time**)..." (page 3, section 2.2.)

In response to appellant's argument that Vassilakis is nonanalogous art, it has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, all of the references are in the same field, namely database and data retrieval. All of the references are dealing with using query language (e.g., SQL) to retrieve data from a DBMSs. IBM and Hejlsberg as combined teach the method of transferring data from a database at record level. Vassilakis teaches the use of a standard SQL command "EXECUTE IMMEDIATE" in combination of the cursor for retrieving data a

row at a time. Therefore the combination of IBM, Hejlsberg with Vassilakis is obvious to

one of ordinary skill in the art as all of the references are in the field of appellant's

endeavor and pertinent to the same particular problem with which the appellant was

concerned.

Independent claims 5, 13 and 21.

Appellant argued that Vassilakis does not teach: "concurrent record-by-record

data transfer in a multi-database DBMS". On the contrary, the examiner relied on the

Vassilakis reference only for the teaching of "the block of SQL statements comprises: a

SQL DECLARE CURSOR FOR SELECT statement, for defining a cursor referencing

separately each SELECT statement result record unloading from the server site, and a

LOAD command and an operator INCURSOR with the same cursor name for pointing to

the receiving record at the target site".

In response to appellant's argument that Vassilakis is nonanalogous art, it has

been held that a prior art reference must either be in the field of appellant's endeavor or,

if not, then be reasonably pertinent to the particular problem with which the appellant

was concerned, in order to be relied upon as a basis for rejection of the claimed

invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this

case, Vassilakis teaches a method of using SQL to retrieve data from database "a row-

at-a-time" similar to IBM and Hejlsberg's teaching using "a SQL DECLARE CURSOR

FOR SELECT statement, for defining a cursor referencing separately each SELECT

statement result record unloading from the server site, and a LOAD command and an

operator INCURSOR with the same cursor name for pointing to the receiving record at

the target site" at page 2, section 2.2. As noted by Vassilakis, "using cursors, an application may obtain addressability to tuples stored in the database (one tuple at a time), fetch data values into its address space, as well as delete or modify the tuples"(page 3, section 2.2). The other limitations such as "concurrent record-by-record" are taught by IBM and Hejlsberg, as discussed above. Further, similar to IBM and Hejlsberg's teaching, Vassilakis teaches a method for using SQL to retrieve data from database "a row-at-a-time" at follows:

"Cursors provide **a row-at-a-time** interface to the database. Using cursors, an application may obtain addressability to tuples stored in the database (**one tuple at a time**)..." (page 3, section 2.2.)

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Khanh Pham

Khanhpham

Conferees:

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Hosain Alam

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